Complete Summary

GUIDELINE TITLE

Preventing pressure ulcers and skin tears.

BIBLIOGRAPHIC SOURCE(S)

Ayello EA. Preventing pressure ulcers and skin tears. In: Mezey M, Fulmer T, Abraham I, Zwicker DA, editor(s). Geriatric nursing protocols for best practice. 2nd ed. New York (NY): Springer Publishing Company, Inc.; 2003. p. 165-84. [45 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Pressure ulcers
- Skin tears

GUIDELINE CATEGORY

Management
Prevention
Risk Assessment
Treatment

CLINICAL SPECIALTY

Family Practice
Geriatrics
Internal Medicine
Nursing
Physical Medicine and Rehabilitation

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Patients
Students

GUIDELINE OBJECTIVE(S)

- To provide instruction regarding pressure ulcer risk assessment
- To identify risk factors associated with pressure ulcer development
- To explain the meaning of an individual´s risk assessment score
- To present a comprehensive, holistic plan to prevent pressure ulcers in individuals at risk
- To classify skin tears
- To identify elders at risk for skin tears
- To present a plan to prevent and treat skin tears

TARGET POPULATION

- Older adults with identified intrinsic and/or extrinsic risk factors for pressure ulcers, including:
    - immobility as seen in bedbound or chairbound patients and those unable to change positions
    - under or malnutrition
    - incontinence
    - friable skin
    - impaired cognitive ability
    - decreased ability to respond to the environment
    - Braden scale risk score
- Older adults in acute or long-term care settings at risk for skin tears. Besides elders, others with thinning skin who are at risk for skin tears are patients on long-term steroid therapy, women with decreased hormone levels, persons with peripheral vascular disease or neuropathy, and those with inadequate nutritional intake.

INTERVENTIONS AND PRACTICES CONSIDERED

Pressure Ulcers

Risk Assessment/Prognosis

Braden Scale

Prevention

1. Thorough assessment of skin (halogen light as needed)
2. Manage moisture
3. Manage nutrition and hydration
4. Dietary consult
5. Manage friction and shear
6. Proper transfer technique (lifting devices as needed)
7. Proper positioning in bed and chair (padding, pillows)
8. Written turning and repositioning schedule
9. Pressure reducing devices as needed (static air, alternating air, gel, water mattresses)
10. Patient, caregiver and staff education regarding prevention protocols

Management

1. Encourage mobilization
2. Monitor and reassess

Skin Tears

Risk Assessment/Prognosis

1. Three group risk assessment tool
2. Payne-Martin classification system

Prevention

1. Environmental modifications
2. Staff/caregiver education
3. Monitor nutrition and hydration
4. Protect from self-injury and skin injury during routine care using correct transfer techniques, padding, non-adherent dressings, etc.

Treatment

1. Assess size of wound, wound tracing
2. Gently clean with normal saline
3. Petroleum-based ointment, steri-strips or moist non-adherent wound dressing

Management

Monitor and reassess

MAJOR OUTCOMES CONSIDERED

- Prevalence, severity and incidence of pressure ulcers
- Complications and costs associated with pressure ulcers
- Incidence of identified risk factors for pressure ulcers
- Reliability and validity of risk assessment tools for pressure ulcers
- Effectiveness of prevention protocols for pressure ulcers
- Incidence of skin tears

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Medline was the electronic database used.

NUMBER OF SOURCE DOCUMENTS

50

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review
Review of Published Meta-Analyses

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Informal Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guideline was reviewed by a content expert.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Pressure Ulcers

Parameters of Assessment

- Assess for intrinsic and extrinsic risk factors
- Braden Scale-cutscore (at risk)
    - 18 or below for elderly and persons with darkly pigmented skin
    - 16 or below for other adults

Nursing Care Strategies/Interventions

Risk Assessment Documentation

- Complete on admission to a facility.
- Reassess whenever the client´s condition changes and based on patient care setting:
    - acute care: every 48 hrs
    - long-term care: weekly for first 4 weeks, then monthly to quarterly
    - home care: every visit
- Use a reliable and standardized tool for doing a risk assessment such as the Braden Scale which is available at: www.bradenscale.com/braden.PDF.
- Document risk assessment scores and implement prevention protocols based on cutscore.

General Care Issues and Interventions

- Culturally sensitive early assessment for stage I pressure ulcers in clients with darkly pigmented skin
    - Use a halogen light to look for skin color changes--may be purple hues.
    - Compare skin over bony prominences to surrounding skin--may be boggy or stiff, warm or cooler.
- Agency for Health Care Policy and Research (now known as the Agency for Healthcare Research and Quality, AHRQ) (AHCPR, 1992) prevention recommendations:
    - Assess skin daily
    - Clean skin at time of soiling--avoid hot water and irritating cleaning agents

- Use moisturizers on dry skin
- Don´t massage bony prominences
- Protect skin of incontinent clients from exposure to moisture
- Use lubricants, protective dressings, and proper lifting techniques to avoid skin injury from friction/shear during transferring and turning of clients
- Turn and position bedbound clients every 2 hours if consistent with overall care goals
- Use a written schedule for turning and repositioning clients
- Use pillows or other devices to keep bony prominences from direct contact with each other
- Raise heels of bedbound clients off the bed; don´t use donut-type devices
- Use a 30 degree lateral side lying position; don´t place client directly on their trochanter
- Keep head of the bed at lowest height possible
- Use lifting devices (Trapeze, bed linen) to move clients rather than dragging them in bed during transfers and position changes
- Use pressure-reducing devices (static air, alternating air, gel, water mattresses)
- Reposition chair or wheelchair bound clients EVERY HOUR. In addition, if client is capable, have them do small weight shifts every 15 MINUTES
- Use a pressure-reducing device (not a donut) for chair-bound

- Other care issues and interventions
  - Keep the patient as active as possible, encourage mobilization
  - Don´t massage reddened bony prominences
  - Avoid positioning the patient directly on their trochanter
  - Avoid use of doughnut-shaped devices.
  - Avoid drying out the patient´s skin, use lotion after bathing
  - Avoid hot water and soaps that are drying when bathing elderly
  - Teach patient, caregivers, and staff the prevention protocols
  - Manage moisture:
    - Manage moisture by determining the cause, use absorbent pad that wicks moisture
    - Offer a bedpan or urinal in conjunction with turning schedules
  - Manage nutrition:
    - Consult a dietician and correct nutritional deficiencies by increasing protein and calorie intake and A, C, or E vitamin supplements as needed
    - Offer a glass of water with turning schedules to keep patient hydrated
  - Manage friction and shear:
    - Elevate the head of the bed no more than 30 degrees
    - Have the patient use a trapeze to lift self up in bed
    - Staff should use a lift sheet or mechanical lifting device to move patient
    - Protect high-risk areas such as elbows, heels, sacrum, back of head from friction injury

Interventions Linked to Braden Cutscores (Adapted from Ayello & Braden, 2001)

- Prevention protocols linked to Braden cutscores are as follows:
    - At risk: score of 15 to 18
        - Frequent turning, consider every 2 hour schedule, use a written schedule
        - Maximize patient´s mobility
        - Protect patient´s heels
        - Use a pressure-reducing support surface if patient is bed- or chairfast
    - Moderate risk: score of 13 to 14
        - Same as above but provide foam wedges for 30 degree lateral position
    - High risk: score of 10 to 12
        - Same as above but add the following:
            - Increase the turning frequency
            - Do small shifts of position
    - Very high risk: score of 9 or below
        - Same as above but use a pressure relieving surface
        - Manage moisture, nutrition, and friction/shear

Evaluation/Expected Outcomes

See the "Potential Benefits" field.

Follow-up Monitoring of Condition

- Monitor effectiveness of prevention interventions
- Monitor healing of any existing pressure ulcers

Skin Tears

Parameters of Assessment

- Use the three group risk assessment tool (White, Karam & Cowell, 1994) to assess for skin tear risk.
- Use the Payne-Martin Classification system to classify skin tear:
    - Category I- a skin tear without tissue loss
    - Category II- a skin tear with partial tissue loss
    - Category III- a skin tear with complete tissue loss, where the epidermal flap is absent

Nursing Care Strategies/Interventions

Preventing Skin Tears

- Provide a safe environment:
    - Do a risk assessment of elderly patients on admission
    - Implement prevention protocol for patients identified as at risk for skin tears
    - Have patients wear long sleeves or pants to protect their extremities
    - Have adequate light to reduce the risk of bumping into furniture or equipment

    - Provide a safe area for wandering
- Educate staff or family caregivers in the correct way of handling patients to prevent skin tears. Maintain nutrition and hydration:
    - Offer fluids between meals
    - Use lotion especially on dry skin on arms and legs twice daily
    - Obtain a dietary consult
- Protect from self-injury or injury during routine care:
    - Use a lift sheet to move and turn patients
    - Use transfer techniques that prevent friction or shear
    - Pad bedrails, wheelchair arms, and leg supports
    - Support dangling arms and legs with pillows or blankets
    - Use non-adherent dressings on frail skin. If you must use tape, make sure it´s paper tape and remove it gently
    - Use gauze wraps, stockinettes, or other wraps to secure dressings rather than tape
    - Use emollient antibacterial soap

Treating Skin Tears

- Gently clean the skin tear with normal saline
- Let the area air dry or pat dry carefully
- Approximate the skin tear flap
- Apply petroleum-based ointment, steri-strips or a moist non-adherent wound dressing
- Use caution if using film dressings as skin damage can occur when removing this dressing
- Consider putting an arrow to indicate the direction of the skin tear on the dressing to minimize any further skin injury during dressing removal
- Always assess the size of the skin tear, consider doing a wound tracing
- Document assessment and treatment findings

Evaluation/Expected Outcome

See the "Potential Benefits" field

Follow-up Monitoring of Condition

Continue to reassess for any new skin tears in elderly clients

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Pressure Ulcers

Patient:

- Client´s skin will remain intact.
- Pressure ulcer(s) will heal.

Provider/Nurse:

- Nurses will accurately perform pressure ulcer risk assessment using standardized tool.
- Nurses will implement pressure ulcer prevention protocols for clients interpreted as at risk for pressure ulcers.
- Nurses will perform a skin assessment for early detection of pressure ulcers.

Institutional:

- Reduction in development of new pressure ulcers.
- Increased number of risk assessments performed.
- Cost-effective prevention protocols developed.

Skin Tears

- No skin tears will occur in at-risk clients.
- Skin tears that do occur will heal.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Ayello EA. Preventing pressure ulcers and skin tears. In: Mezey M, Fulmer T, Abraham I, Zwicker DA, editor(s). Geriatric nursing protocols for best practice. 2nd ed. New York (NY): Springer Publishing Company, Inc.; 2003. p. 165-84. [45 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2003

GUIDELINE DEVELOPER(S)

The John A. Hartford Foundation Institute for Geriatric Nursing - Academic Institution

GUIDELINE DEVELOPER COMMENT

The guidelines were developed by a group of nursing experts from across the country as part of the Nurses Improving Care for Health System Elders (NICHE) project, under sponsorship of The John A. Hartford Foundation Institute for Geriatric Nursing.

SOURCE(S) OF FUNDING

Supported by a grant from the John A. Hartford Foundation.

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Author: Elizabeth A. Ayello, PhD, RN, CS, CWOCN

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Copies of the book Geriatric Nursing Protocols for Best Practice, 2nd edition: Available from Springer Publishing Company, 536 Broadway, New York, NY 10012; Phone: (212) 431-4370; Fax: (212) 941-7842; Web: www.springerpub.com.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on May 30, 2003. The information was verified by the guideline developer on August 25, 2003.

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